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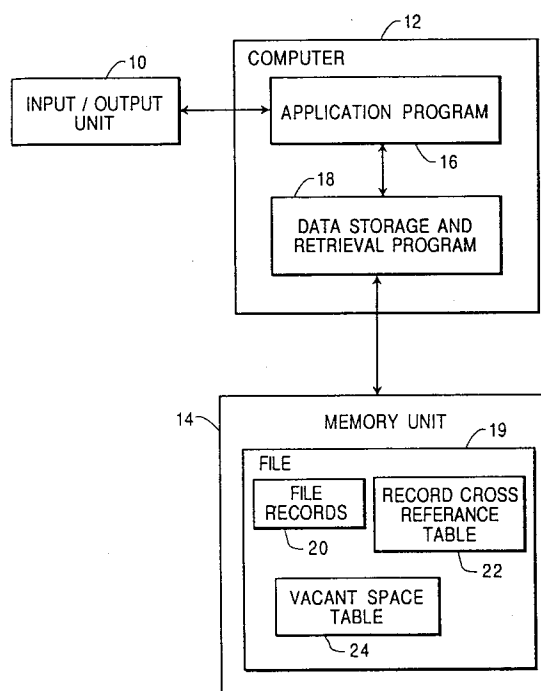
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W-8000 München 81(DE)(54) **Dynamic data storage system.**

(57) The system of the present invention provides a data storage system program (18) between a user and a physical memory device (14) which stores file records (20). The data storage system (18) stores records as linked record segments 40/50 that can be randomly located within the memory storage device (14). The segments 40/50 are linked by a next segment address found in a next segment address field 50/51 of a record segment 40/50. When a record needs to be expanded and the current record segment 1000 is not large enough to accommodate the expansion, another record segment 1082 is allocated and used. If variable length record segments 40 are used, only a single record extension is required. However, if fixed length record segments 50 are used, the system allocates sufficient fixed length record segments to store the additional data. When records shrink in size or are deleted, the vacant space becomes available for reuse and the system attempts to remove the vacant space by combining record segments and storing a single segment in available vacant space.

FIG.1**EP 0 446 940 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 91 10 4010

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	JEFFREY ULLMAN 'Principles of Database Systems' 1980, PITMAN PUBLISHING LTD, LONDON, GB * page 54, line 16 - page 58, line 27 * ---	1-4, 7, 11, 13, 18-20	G06F12/02
Y	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 29, no. 10, March 1987, NEW YORK US page 4597; 'Method for Updating Pointed Records' * the whole document * ---	1-4, 7, 11, 13, 18-20	
A		12, 17	
A	EP-A-0 164 578 (SIEMENS) * page 2, line 8 - line 28 * ---	1, 12, 13, 17	
A	EP-A-0 043 391 (INTERNATIONAL BUSINESS MACHINES) * page 5, line 13 - page 6, line 13 * * page 10, line 28 - page 12, line 9 * * page 15, line 12 - page 16, line 9; figure 3 * ---	1-4, 12, 13, 17-19	
A	EP-A-0 116 366 (HITACHI) * abstract; figures 4-8 * * page 4, line 19 - page 5, line 9 * -----	1, 5-9, 12, 13, 15-18	TECHNICAL FIELDS SEARCHED (Int. Cl.5) G06F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 03 MARCH 1992	Examiner NIELSEN O.P.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ***** & : member of the same patent family, corresponding document			